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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,596	08/25/2003	Chiao-Chung Huang	B-5221 621209-5	4262

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EXAMINER

ALIE, GHASSEM

ART UNIT	PAPER NUMBER
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3724

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,596

Applicant(s)

HUANG ET AL.

Examiner

Ghassem Alie

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2003 and 02 November 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 8-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>09/22/03</u> | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-7, drawn to a cutting device for splitting a test piece, classified in class 409, subclass 138.
 - II. Claims 8-12, drawn to a method of splitting a test piece, classified in class 83, subclass 13.

The inventions are distinct, each from the other because:

- a. Inventions II and I are related as process and apparatus for its practice.

The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case (2) applies because the apparatus as claimed can be used to practice another and materially different process such as the process of punching a workpiece. In addition, the process as claimed can be practiced by another materially different apparatus such as an apparatus that does not have a cutter under the stage of the microscope.

2. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.
3. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR. 1.143).

4. During a telephone conversation with Richard P. Berg (Reg. No. 28,145) on 11/02/04 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-7. Affirmation of this election must be made by applicant in replying to this Office action. Claims 8-12 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

6. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claim 7, "the image sensor" lack antecedent basis.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Petroz (5,174,188). Regarding claim 1, Petroz teaches a precise cutting device for splitting a test piece 26 including a microscope 13a having a support arm, a stage 22. The plaquette 26 is defined as a test piece. Petroz also teaches that the stage 22 includes an opening and movably connected to the arm to support the test piece 26. Petroz also teaches a lens set disposed on the top of the support arm, which is inherently adjustable to show the microstructure of the test piece 26. Petroz also teaches a cutter 40 disposed under the stage 22 of the microscope 13a and passing through the opening to form notches on the surface of the test piece 26. See Figs. 1-10 and col. 5, lines 24-68 and col. 6, lines 1-68 in Petroz.

Regarding claim 2, Petroz teaches everything noted above including that the stage 22 has a clip 46 to fix the test piece 26 and a first position adjuster to shift the test piece horizontally within a predetermined area. The clamps 46 define as a clip, which fix the test piece 26. The stage 22 is movable in translating along axis X, Y, and Z. Therefore, the test piece 26 is capable of being shift horizontally within a predetermined area. See col. 5, lines 24-42 in Petroz.

Regarding claim 3, Petroz teaches everything noted above including a second position adjuster 44 disposed under the stage 22 elevating the vertical position of the cutter 40 assembled thereon.

Regarding claim 4, Petroz teaches everything noted above including that the cutter 40 has a diamond tip. See col. 7, lines 12-27 in Petroz.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Petroz in view of Habeck et al. (3,812,748), hereinafter Habeck, or Nausbaum

(3,812,748). Regarding claim 5, Petroz teaches everything noted above including that the cutter has diamond tip, but Petroz does not teach that the cutter could have a wheel knife at the tip. However, the use of cutters having a tip with a wheel knife is well known in the art such as taught by Habeck or Nausbaum. Habeck teaches a cutter for cutting a workpiece can be either from diamond, a sharp cutting knife, or a cutting wheel. See col. 1, lines 36-67 in Habeck. Nausbaum also teaches a cutter 20 having a cutting tip which is a cutting wheel 34. See Fig. 1-3 in Nausbaum. It would have been obvious to a person of ordinary skill in the art to provide Petroz cutting machine with the cutter having a cutting wheel as taught by Habeck or Nausbaum, since the cutter with the diamond tip functions the same as the cutter with the cutting wheel, since both cutting the workpiece or the test piece. In addition, according to the type of material to be cut, a cutter with the cutting wheel could be used instead the cutter with the diamond cutting tip.

12. Claim 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Petroz in view of Genser et al. (2002/0056345), hereinafter Genser, or Shirley et al.

(5,974,903), hereinafter Shirley. Regarding claim 6, Petroz teaches everything noted above except that an image sensor disposed on the lens set for sending optical images and converting them into electronic signals, and a monitor electrically connected to the image

Art Unit: 3724

sensor and displaying the electronic signal. However, the use of camera and monitor for displaying images of the workpiece or test piece is well known in the art such as taught by Genser or Shirley. Genser teaches an image sensor 17 disposed on a lens set for sending optical images and converting them into electronic signals, and a monitor 18 electrically connected to the image sensor and displaying the electronic signal. See Figs. 1-3 and col. 3, paragraphs 35-39 in Ganser. Shirley also teaches an image sensor 34 disposed on a lens set for sending optical images and converting them into electronic signals, and a monitor 36 electrically connected to the image sensor and displaying the electronic signal. See Figs. 1-2 and col. 2, lines 1-67 in Shirley. It would have been obvious to a person of ordinary skill in the art to provide Petroz's cutting machine with the image sensor and the monitor as taught by Genser or Shirley in or to enhance the observation of the workpiece or the test piece.

Regarding claim 7, as best understood, Petroz as modified above teaches everything noted above including that the image sensor is a charged-coupled camera. The camera inherently is a CCD camera. In addition, Official notice is taken that use of CCD camera is well known in the art such as taught by Fasanella et al. (6,672,939), hereinafter Fasanella. Fasanella also teaching an image sensor 670, which is CCD and a monitor 660 for displaying images of the workpiece to be cut cut. See Figs. 1-3 and col. 11, lines 1-12 in Fasanella.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kapocsi (4,975,005), Fasanella et al. (6,672,939), Weiss (2003/0133190), Schutze et al. (5,998,129), Hillenkam et al. (4,243,887), Ima (4,620,776), Sakata et al. (5,355,755), and

Art Unit: 3724

Turner (5,820,006) teach a cutting device having a microscope.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ghassem Alie whose telephone number is (703) 305-4981.

The examiner can normally be reached on Mon-Fri 8:30 am - 5:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan Shoap can be reached on (703) 305-1082.

The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9302 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

GA/ga

November 04, 2004


Allan N. Shoap
Supervisory Patent Examiner
Group 3700